

ANNUAL SYNAR REPORT

42 U.S.C. 300x-26

OMB No 0930-0222

North Carolina

FFY 2008

2007 Synar Survey

**Submitted By: NC Department of Health and Human Services
Division of Mental Health, Developmental Disabilities and
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**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Prevention
www.samhsa.gov**

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INTRODUCTION

The Annual Synar Report (ASR) format provides the means for States to comply with the reporting provisions of the Public Health Service Act (42 U.S.C. 300x-26) and the Tobacco Regulation for the SAPT Block Grant (45 C.F.R. 96.130 (e)).

Public reporting burden for the collection of information is estimated to average 15 hours for Section I and 3 hours for Section II, including the time for reviewing instructions, completing and reviewing the collection of information, searching existing data sources, and gathering and maintaining the data needed. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to SAMHSA Reports Clearance Officer; Paperwork Reduction Project (#####-#####); 1 Choke Cherry Road, 7th Floor Rockville, Maryland 20857

An agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control number for this project is 0930-0222 with an expiration date of 10-31-2010.

How the Synar report helps the Center for Substance Abuse Prevention

In accordance with the tobacco regulations, States are required to provide detailed information on progress made in enforcing youth tobacco access laws (FFY xxxx Compliance Progress) and future plans to ensure compliance with the Synar requirements to reduce youth tobacco access rates (FFY xxxx Intended Use Plan). These data are required by 42 U.S.C. 300x-26 and will be used by the Secretary to evaluate State compliance with the statute. Part of the mission of the Center for Substance Abuse Prevention (CSAP) is to assist States¹ by supporting Synar activities and providing technical assistance helpful in determining the type of enforcement measures and control strategies that are most effective. This information is helpful to CSAP in improving technical assistance resources and expertise on enforcement efforts and tobacco control program support activities, including State Synar Program support services, through an enhanced technical assistance program involving conferences and workshops, development of training materials and guidance documents, and on-site technical assistance consultation.

How the Synar report can help States

The information gathered for the Synar report can help States describe and analyze sub-State needs for program enhancements. These data can also be used to report to the State legislature and other State and local organizations on progress made to date in enforcing youth tobacco access laws when aggregated statistical data from State Synar reports can demonstrate to the Secretary the national progress in reducing youth tobacco access problems. This information will also provide Congress with a better understanding of State progress in implementing Synar, including State difficulties and successes in enforcing retailer compliance with youth tobacco access laws.

¹The term State is used to refer to all the States and territories required to comply with Synar as part of the Substance Abuse Prevention and Treatment Block Grant Program requirements (42 U.S.C. 300x-64 and 45 C.F.R. 96.121).

Getting assistance in completing the Synar report

If you have questions about programmatic issues, you may call CSAP's Division of State Programs at (240) 276-2413 and ask for your respective State Project Officer, or contact your State Project Officer directly by telephone or e-mail using the directory provided. If you have questions about fiscal or grants management issues, you may call the Grants Management Officer, Office of Program Services, Division of Grants Management, at (240) 276-1404.

Where and when to submit the Synar report

The Annual Synar Report (ASR) must be received by SAMHSA no later than December 31, 2007. The ASR must be submitted in the **approved OMB report format**. Use of the approved format will avoid delays in the review and approval process. The chief executive officer (or an authorized designee) of the applicant organization must sign page 1 of the ASR certifying that the State has complied with all reporting requirements.

Submit one signed original of the report, one additional copy, and an electronic version on either CD-ROM or 3.5" diskette to the Grants Management Officer at the address below:

Grants Management Officer
Office of Program Services, Division of Grants Management
Substance Abuse and Mental Health Services Administration

Regular Mail:

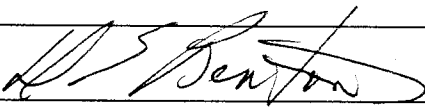
1 Choke Cherry Road, Rm.7-1103
Rockville, Maryland 20857

Overnight Mail:

1 Choke Cherry Road, Rm.7-1103
Rockville, Maryland 20850

FFY 2008: FUNDING AGREEMENTS/CERTIFICATIONS

The following form must be signed by the Chief Executive Officer or an authorized designee and submitted with this application. Documentation authorizing a designee must be attached to the application.

PUBLIC HEALTH SERVICES ACT AND SYNAR AMMENDMENT	
42 U.S.C. 300x-26 requires each State to submit an annual report of its progress in meeting the requirements of the Synar Amendment and its implementing regulation (45 C.F.R. 96.130) to the Secretary of the Department of Health and Human Services. By signing below, the chief executive officer (or an authorized designee) of the applicant organization certifies that the State has complied with these reporting requirements and the certifications as set forth below.	
SYNAR SURVEY SAMPLING METHODOLOGY	
The State certifies that the Synar survey sampling methodology on file with the Center for Substance Abuse Prevention and submitted with the Annual Synar Report for FFY 2005 is up-to-date and approved by the Center for Substance Abuse Prevention.	
SYNAR SURVEY INSPECTION PROTOCOL	
The State certifies that the Synar Survey Inspection Protocol on file with the Center for Substance Abuse Prevention and submitted with the Annual Synar Report for FFY2005 is up-to-date and approved by the Center for Substance Abuse Prevention.	
State: North Carolina	
Name of Chief Executive Officer or Designee: Dempsey Benton	
Signature of CEO or Designee: 	
Secretary, Department of Health and Human	
Title: Services	Date Signed: 12/19/07
If signed by a designee, a copy of the designation must be attached	

SECTION I: FFY 2007(Compliance Progress)

YOUTH ACCESS LAWS, ACTIVITIES, AND ENFORCEMENT

42 U.S.C. 300x-26 requires the States to report information regarding the sale/distribution of tobacco products to individuals under age 18.

1. Please indicate any changes or additions to the State tobacco statute(s) relating to youth access since the last reporting year. Please attach a photocopy of the change(s) in the State law(s) if any was made since the last reporting year. (See 42 U.S.C. 300x-26)

a. Has there been a change in the *minimum sale age* for tobacco products?

☐ Yes ☒ No

If Yes, current minimum age: ☐ 19 ☐ 20 ☐ 21

b. Have there been any changes in State law that impact the State's *protocol for conducting Synar inspections*? ☐ Yes ☒ No

If Yes, indicate change (check all that apply):

☐ Changed to require that law enforcement conduct inspections of tobacco outlets

☐ Changed to make it illegal for youth to possess, purchase or receive tobacco

☐ Changed to require ID to purchase tobacco

☐ Other change(s) (please describe): _____

c. Have there been any changes in the law concerning *vending machines*? ☐ Yes ☒ No

If Yes, indicate change (check all that apply):

☐ Total ban enacted

☐ Banned from location(s) accessible to youth

☐ Locking device or supervision required

☐ Other change(s) (please describe): _____

d. Have there been any changes in State law that impact the following?

Licensing of tobacco vendors ☐ Yes ☒ No

Penalties for sales to minors ☐ Yes ☒ No

2. Describe how the Annual Synar Report (see 45 C.F.R. 96.130(e)) and the State Plan (see 42 U.S.C. 300x-51) were made public within the State prior to submission of the ASR. (Check all that apply)

☐ Placed on file for public review

☒ Posted on a State agency Web site (please provide exact web address)

Synar Compliance Reports at www.ncdhhs.gov/mhddsas/statpublications/reports

- ☐ Notice published in a newspaper or newsletter
- ☐ Public hearing
- ☐ Announced in a news release, a press conference, or discussed in a media interview
- ☐ Distributed for review as part of the SAPT Block Grant application process
- ☐ Distributed through the public library system
- ☐ Published in an annual register
- ☐ Other change(s) (please describe): _____

3. Identify the following agency or agencies. (See 42 U.S.C. 300x-26 and 45 C.F.R. 96.130)

a. The State agency(s) designated by the Governor for oversight of the Synar requirements:

NC Department of Health and Human Services, Division of Mental Health, Developmental Disabilities and Substance Abuse Services

Has this changed since last year's Annual Synar Report? ☐ Yes ☒ No

b. The State agency(s) responsible for conducting random, unannounced Synar inspections:

NC Department of Health and Human Services, Division of Mental Health, Developmental Disabilities and Substance Abuse Services

Has this changed since last year's Annual Synar Report? ☐ Yes ☒ No

c. The State agency(s) responsible for enforcing youth tobacco access law(s):

NC Department of Crime Control and Public Safety, Division of Alcohol Law Enforcement

Has this changed since last year's Annual Synar Report? ☐ Yes ☒ No

4. Identify the State agency(s) responsible for tobacco prevention activities.

NC Department of Health and Human Services, Division of Public Health, Tobacco Prevention and Control Branch

Has the responsible agency changed since last year's Annual Synar Report?

☐ Yes ☒ No

a. Describe the coordination and collaboration that occur between the agency responsible for tobacco prevention and the agency responsible for oversight of the Synar requirements. The two agencies (check all that apply):

- ☐ Are the same
- ☐ Have a formal written memorandum of agreement
- ☒ Have an informal partnership

- ☒ Conduct joint planning activities
- ☐ Combine resources
- ☒ Have other collaborative arrangement(s) (please describe): Collaborate on training and technical assistance activities, policy strategies and workgroups

5. Please answer the following questions regarding the State's activities to enforce the youth access to tobacco law(s) in FFY 2007. (See 42 U.S.C. 300x-26 and 45 C.F.R. 96.130(e))

a. Which one of the following describes the enforcement of youth access to tobacco laws carried out in your State? (Check one category only)

- ☐ Enforcement is conducted exclusively by local law enforcement agencies.
- ☐ Enforcement is conducted exclusively by State agency(s).
- ☒ Enforcement is conducted by both local and State agencies.

b. The following items concern penalties imposed for violations of youth access to tobacco laws by LOCAL AND/OR STATE LAW ENFORCEMENT AGENCIES. Please fill in the number requested. If State law does not provide for tobacco retailer license/permit suspension or revocation, please mark "NA".

PENALTY	OWNERS	CLERKS	TOTAL
Number of <u>citations issued</u>		1362	
Number of <u>fin es assessed</u>		Not Available	
Number of <u>permits/licenses suspended</u>	NA		
Number of <u>permits/licenses revoked</u>	NA		
Other (please describe):			

c. What additional activities are conducted in your State to support enforcement and compliance with State tobacco access law(s)? (Check all that apply)

- ☒ Merchant education and/or training
- ☒ Incentives for merchants who are in compliance (e.g., Reward and Reminder)
- ☒ Community education regarding youth access laws
- ☒ Media use to publicize compliance inspection results
- ☒ Community mobilization to increase support for retailer compliance with youth access laws
- ☐ Other activities (please list): GIS mapping of compliance checks data to determine patterns of violations and target educational activities

Briefly describe all checked activities:

1. **Merchant Education - conduct phase 3 of the Red Flag retailer campaign to promote the use of the driver's license as a prompt or first visual clue that the purchaser may be underage and to increase compliance with the youth access law among retailers and clerks in targeted areas. and engage communities, including youth, in local events to educate and support retailers. The campaign highlights the importance of checking IDs (NC's driver licenses have a red background/ border to denote license holders under the age of 18). It includes print and paid media, print materials, local events and direct mail to retailers.**

The last Phase of the campaign was launched in Alcohol Law Enforcement (ALE) districts II, III and VI on March 1, 2007. Districts/communities were selected based on an analysis of ALE's compliance checks data conducted by Kurt Ribisl of the UNC School of Public Health. Districts were selected based on those that had the lowest violation rates in ALE districts matched with the location of Health and Wellness Trust Fund (HWTF) grantees, coalitions and groups who are already addressing access and other tobacco prevention issues in their local communities.

2. **Conduct community education, mobilization and recognition activities (i.e. local events to present TEE awards to clerks) in partnership with local agencies to raise awareness of youth access issues among merchants, clerks, and the community at large. ALE agents will provide positive recognition as well as incentives for store clerks that do not sell tobacco products to minors during enforcement operations.**

Regional Red Flag Grassroots Training Sessions were held following the launch of the campaign to build support for enforcement activities; to increase awareness at the local level about the Red Flag Campaign and to discuss how communities can assist in disseminating the program.

ALE agents have distributed 5,898 certificates Tobacco Enforcement Excellence (TEE) Awards to retail clerks that have refused the sale of tobacco products to minors during ALE compliance checks from SFY July 1, 2006 through June 30 2007.

3. **Partner with community agencies to host retailer education and training events. ALE will inform all retailers who are issued a citation for violation of the State's Youth Access Law of the availability of the BARS (Be A Responsible Seller) Education Program. BARS training brochures will also be distributed to retailers.**

ALE conducted 315 Be A Responsible Seller/Server (BARS) programs statewide to retailers and their employees regarding requirements of the State's Youth Access Law and its penalties (from SFY July 1, 2006 through June 30 2007).

- 4. Get earned or free media attention to enforcement activities including compliance checks and other community events in local newspapers, television or radio. This will be achieved primarily through press releases from ALE's Public Information Office.**

ALE generated 28 earned media stories across the state to increase awareness of youth access related issues (data from SFY July 1, 2005 through June 30 2006).

- 5. Conduct an analysis of Alcohol Law Enforcement's (ALE) compliance checks data by geocoding the location of outlets visited by ALE and analyzing patterns of violations using selected census tract demographics, including racial, income, education and housing variables. GIS (Geographic Information System) mapping and tables are being used to depict patterns of violations by region, major city and county.**

The analysis and mappings are currently being used to identify counties within ALE districts to participate in more targeted interventions (i.e. enforcement, direct mail campaign) in those high non-compliant areas of the state.

- d. Are citations or warnings issued to retailers or clerks who sell tobacco to minors for inspections that are part of the Synar survey? ☐ Yes ☒ No**
- e. If "Yes" to 5.d., please describe the State's procedure for minimizing risk of bias to the survey results:**

SYNAR SURVEY METHODS AND RESULTS

The following questions pertain to the survey methodology and results of the Synar survey used by the State to meet the requirements of the Synar Regulation in FFY 2007. (See 42 U.S.C. 300x-26 and 45 C.F.R. 96.130)

6. Has the sampling methodology changed from the previous year?

☐ Yes ☒ No

The State is required to have an approved up-to-date description of the Synar sampling methodology on file with CSAP. Please submit a copy of your Synar Survey Sampling Methodology (Appendix B). If the sampling methodology changed from the previous reporting year, these changes must be reflected in the methodology submitted.

7. Please answer the following questions regarding the State's annual random, unannounced inspections of tobacco outlets. (See 45 C.F.R. 96.130(d)(2))

a. Did the State use the optional Synar Survey Estimation System (SSES) to analyze the Synar survey data?

☒ Yes ☐ No

If Yes, attach SSES summary tables 1, 2, 3 and 4 and go to Question 8. If No, continue to Question 7b.

b. Report the weighted and unweighted Retailer Violation Rate (RVR) estimates, and the standard error.

Unweighted RVR _____

Weighted RVR _____

Standard error (s.e.) of the (weighted) RVR _____

Fill in the blanks to calculate the right limit of the right-sided 95% confidence interval.

_____	+	(1.645	×	_____)	=	_____
RVR Estimate	Plus	(1.645	times	Standard Error)	equals	Right Limit

c. Fill out Form 1 in Appendix A (Forms). (Required regardless of the sample design)

d. How were the (weighted) RVR estimate and its standard error obtained? (Check the one that applies)

☐ Form 2 (Optional) in Appendix A (Forms) (Attach completed Form 2)

☐ Other (Please specify. Provide formulae and calculations or attach and explain the program code and output with description of all variable names.)

- e. If stratification was used, did any strata in the sample contain only one outlet or cluster this year?

☐ Yes ☐ No ☐ No stratification

If Yes, explain how this situation was dealt with in variance estimation.

- f. Was a cluster sample design used?

☐ Yes ☐ No

If No, go to Question 7g.

If Yes, fill out and attach Form 3 in Appendix A (Forms), and answer the following question:

Were any certainty primary sampling units selected this year?

☐ Yes ☐ No

If Yes, explain how the certainty clusters were dealt with in variance estimation.

- g. Report the following outlet sample sizes for the Synar survey.

	Sample Size
Effective sample size (sample size needed to meet the SAMHSA precision requirement assuming simple random sampling)	
Target sample size (the product of the effective sample size and the design effect)	
Original sample size (inflated sample size of the target sample to counter the sample attrition due to ineligibility and non-completion)	
Eligible sample size (number of outlets found to be eligible in the sample)	
Final sample size (number of eligible outlets in the sample for which an inspection was completed)	

- h. Fill out Form 4 in Appendix A (Forms).

8. Did the State's Synar survey use a list frame?

☒ Yes ☐ No

If Yes, answer the following questions about its coverage:

- a. The calendar year of the latest frame coverage study: 2007

b. Percent coverage from the latest frame coverage study: 64% weighted and 70% unweighted

c. Was a new study conducted in this reporting period? ☒ Yes ☐ No

If Yes, please complete Appendix D (List Sampling Frame Coverage Study) and submit it with the Annual Synar Report.

d. **The calendar year of the next coverage study planned:** We plan to submit a sample design revision, going from a list frame to a list assisted area frame. The list will be used only for size measures in the sample selection process. Therefore, we understand that future coverage studies will not be required.

9. Has the Synar survey inspection protocol changed from the previous year?

☐ Yes ☒ No

The State is required to have an approved up-to-date description of the Synar inspection protocol on file with CSAP. Please submit a copy of your Synar Survey Inspection Protocol (Appendix C). If the inspection protocol changed from the previous year, these changes must be reflected in the protocol submitted.

a. Provide the inspection period: From: 2/17/07 To: 5/12/07
MM/DD/YY MM/DD/YY

b. Provide the number of youth inspectors used in the current inspection year:
Six

NOTE: If the State uses SSES, please ensure that the number reported in 9.b. matches that reported in SSES Table 4, or explain any difference.

c. Fill out and attach Form 5 in Appendix A (Forms). *(Not required if the State used the Synar Survey Estimation System (SSES) to analyze the Synar survey data)*

SECTION II: FFY 2008 (Intended Use):

Public law 42 U.S.C. 300x-26 of the Public Health Service Act and 45 C.F.R. 96.130 (e) (4, 5) require that the States provide information on future plans to ensure compliance with the Synar requirements to reduce youth tobacco access.

1. In the upcoming year, does the State anticipate any changes in the:

Synar sampling methodology ☒ Yes ☐ No
Synar inspection protocol ☐ Yes ☒ No

If changes are made in either the Synar sampling methodology or the Synar inspection protocol, the State is required to obtain approval from CSAP prior to implementation of the change and file an updated Synar Survey Sampling Methodology (Appendix B) or an updated Synar Survey Inspection Protocol (Appendix C), as appropriate.

2. Please describe the State's plans to maintain and/or reduce the target rate for Synar inspections to be completed in FFY 2008. Include a brief description of plans for law enforcement efforts to enforce youth tobacco access laws, activities that support law enforcement efforts to enforce youth tobacco access laws, and any anticipated changes in youth tobacco access legislation or regulation in the State.

With funding from the NC Health and Wellness Trust Fund (HWTF), the State plans to implement an education and enforcement program that will focus specifically on the following goals/objectives:

1. Implement targeted enforcement in counties 1) where noncompliance is high, 2) that are high density, such as large urban or rural areas, and 3) suspend or decrease checks in counties that have been highly saturated and have buy rates less than 10%. A minimal baseline number of compliance checks will be conducted in all counties.
2. Maintain current database of retail outlets visited by Alcohol Law Enforcement (ALE) Agents in order to expand analyses of data from compliance checks. Emphasis will be placed on investigations of patterns of non-compliance that may lead to enhanced enforcement strategies. The data will also be available to local grantees and agencies desiring to target merchant education activities to retail outlets in which clerks were cited by Alcohol Law Enforcement during compliance checks.
3. Increase media and recognition activities to raise public awareness of the youth access law, its penalties and enforcement operations among judges, district attorneys, retailers, law enforcement agencies, community agencies, parents, teens and local groups.
4. Continue to enhance and build new partnerships with local law enforcement, retailers, Area Mental Health /Public Health Programs, local coalitions, youth organizations and community groups to effectively address the youth access issue at the local level through training, community interventions and media activities.

5. Maintain a youth access to tobacco products rate of 20% or less to comply with the federal Synar Amendment and work towards achieving NC's Healthy Carolinians 2010 goal of a 5% retailer non-compliance rate.

These objectives will be accomplished through the strategies and activities described below:

1. Implement monthly prescriptions for the nine Alcohol Law Enforcement (ALE) districts, which will include an analysis of past compliance checks data, to select counties for targeted enforcement activities.
2. Conduct at least 600 tobacco compliance checks per month, for a total of 7,200 checks annually throughout the grant cycle.
3. Conduct 2-3 booster activities to maintain momentum with the Red Flag campaign. These booster activities may include any of the following activities: a post card mail campaign to retailers statewide with tested messages to increase retailer compliance, earned media, stepped-up dissemination of Red Flag materials in "high-risk" areas of ALE districts, and special events in local communities in support of the campaign. The campaign was released over three years and highlights the importance of checking IDs of customers attempting to purchase tobacco products. The campaign places a special emphasis on driver's licenses with a red border because a red background/ border that denotes that the license holder is under the age of 18, which provides a clear visual cue for the retailer to stop the tobacco purchase attempt. The program is sponsored jointly by the Division of MH/DD/SAS and the Division of Alcohol Law Enforcement
4. Partner with a Latino organization to assess training needs of Hispanic retailers and to have merchant education materials such as Red Flag translated or developed in a language that is culturally and linguistically appropriate.
5. Participate in at least three community mobilization and recognition activities such as local events to present Tobacco Enforcement Excellence/TEE awards to clerks in partnership with local agencies to raise awareness of youth access issues among merchants, clerks, parents and the community at large. ALE agents will provide positive recognition as well as incentives for store clerks that do not sell tobacco products to minors during enforcement operations.
6. Generate at least 15 media stories on youth access compliance and community events in local newspapers, television or radio. Press releases regarding compliance/enforcement operations will be distributed by ALE's Public Information Office. The Division of MH/DD/SAS and ALE will work with the HWTF media staff to publicize special events.
7. Promote collaboration among the Local Management Entities and their contract agencies, local organizations, Health and Wellness Trust Fund Grantees, local law enforcement and Alcohol Law Enforcement agents to recruit and train youth ages 16-17 to participate in enforcement activities; distribute merchant education materials; develop local media stories on youth access issues; promote the availability of the BARS Program to local retail merchants; and coordinate local retailer trainings.

8. Work in collaboration with the UNC Tobacco Prevention and Evaluation Program to implement recommendations as stated in "*Maintaining Momentum in Reducing Youth Access to Tobacco in NC: Report from a Literature Review and Statewide Forum to Help Identify Future Strategies*".

3. Describe any challenges the State faces in complying with the Synar regulation. (Check all that apply)

- ☒ Limited resources for law enforcement of youth access laws
- ☒ Limited resources for activities to support enforcement and compliance with youth tobacco access laws
- ☒ Limitations in the State youth tobacco access laws
- ☐ Limited public support for enforcement of youth tobacco access laws
- ☒ Limitations on completeness/accuracy of list of tobacco outlets
- ☐ Limited expertise in survey methodology
- ☐ Laws/regulations limiting the use of minors in tobacco inspections
- ☒ Difficulties recruiting youth inspectors
- ☐ Geographic, demographic, and logistical considerations in conducting inspections
- ☒ Cultural factors (e.g., language barriers, young people purchasing for their elders)
- ☐ Issues regarding sources of tobacco under tribal jurisdiction
- ☐ Other challenges (please list): _____

Briefly describe all checked challenges and propose a plan for each, or indicate the State's need for TA related to each relevant challenge:

One of the challenges that the Division of MH/DD/SAS and the Department of Health and Human Services continue to face in implementing the Synar Program is maintaining funding for enforcement as well as activities to support enforcement. Since losing the FDA contract in March 2000 maintaining statewide enforcement effort has been challenging for the state. The Department of Health and Human Services worked diligently to identify stopgap state funding sources primarily through lapsed salary to prevent a lag in enforcement. The Division, working with the Tobacco Prevention and Control Branch, Alcohol Law Enforcement and other partners were successful in securing funding from the NC Health and Wellness Trust Fund, (dependent upon availability of funds and satisfactory progress), to conduct compliance checks, support enforcement activities and other initiatives to prevent and reduce teen tobacco use.

The NC Youth Access Law makes it illegal for youth under 18 years of age to purchase tobacco products, but does not prohibit them from possessing the product or from smoking. This does not seem reasonable, particularly to law enforcement agencies and is seen as a weakness in the law. There has been some interest in trying to get possession added to the legislation, but there are advocates who do not support this strategy. It is an issue that the state will continue to review as well as to monitor how this is handled in other states.

Because the state does not have licensure, it has been difficult identifying retail outlets that sell tobacco products. We do use a commercial business list to draw a sample of potential tobacco retail outlets, but it has limitations as well. The University of NC's

Tobacco Prevention and Evaluation Program on behalf of the Division of MH/DD/SAS and ALE hosted a forum for researchers and partner agencies on September 26, 2007 to discuss “Where do we go from here? Next steps for North Carolina in reducing youth access to tobacco.” Several issues were discussed for further review including policy options to strengthen the state’s youth access law.

It is also becoming increasingly difficult to recruit minors to participate in the inspections. This is mostly due to other competing factors or obligations such as employment opportunities, sports, camps, etc and relocation. The State is looking at several alternatives for recruitment and retention of youth.

There are an increasing number of ethnic vendors/retailers in the state which presents language and cultural barriers as far as interpretation of the law and its requirements. This increases the need for merchant education and other materials designed especially for use in communities where there isn’t fluency in the English language. Currently the state makes signs available to retailers in both English and Spanish to post at the point of sale and is working on adapting the “Check That Photo ID” brochure to Spanish as well. The State plans to work with a Hispanic organization during this fiscal year to assist us in determining what are the training needs of Hispanic retailers in our state. At a minimum, the State would like to provide culturally appropriate merchant education materials. We have also identified two local programs interested in conducting a pilot project with Hispanic retailers.

APPENDIX A: SSES TABLES

TABLE 1 – Synar Survey Estimates and Sample Sizes

TABLE 2 – Synar Survey Results by Stratum and by OTC/VM

TABLE 3 – Synar Survey Sample Tally Summary

TABLE 4 – Synar Survey Inspection Results by Youth Inspector Characteristics

SSSES Table 1 (Synar Survey Estimates and Sample Sizes)

CSAP-SYNAR REPORT

State	NC
Federal Fiscal Year (FFY)	2008
Date	12/12/2007 16:40
Data	NCSSESinput07.xls
Analysis Option	Stratified Clustered with FPC

Estimates

Unweighted Retailer Violation Rate	11.0%
Weighted Retailer Violation Rate	11.5%
Standard Error	1.2%
Is SAMHSA Precision Requirement met?	YES
Right-sided 95% Confidence Interval	[0.0%, 13.5%]
Two-sided 95% Confidence Interval	[9.2%, 13.9%]
Design Effect	1.2
Accuracy Rate (unweighted)	58.7%
Accuracy Rate (weighted)	52.2%
Completion Rate (unweighted)	93.9%

Sample Size for Current Year

Effective Sample Size	265
Target (Minimum) Sample Size	940
Original Sample Size	1,706
Eligible Sample Size	1,001
Final Sample Size	940
Overall Sampling Rate	11.6%

SSES Table 2 (Synar Survey Results by Stratum and by OTC/VM)

STATE: NC

FFY: 2008

Samp. Stratum	Var. Stratum	Outlet Frame Size	Estimated Outlet Population Size	Number of PSU Clusters Created	Number of PSU Clusters in Sample	Outlet Sample Size	Number of Eligible Outlets in Sample	Number of Sample Outlets Inspected	Number of Sample Outlets in Violation	Retailer Violation Rate(%)	Standard Error(%)
All Outlets											
11	11	0	702	22	3	117	73	68	10	15.5%	
12	12	0	866	8	2	135	76	65	11	17.2%	
13	13	0	557	4	2	125	85	73	7	10.9%	
14	14	0	532	54	8	111	60	58	4	5.8%	
21	21	0	758	24	3	155	102	95	7	7.1%	
22	22	0	703	7	2	171	104	100	13	13.6%	
31	31	0	631	11	2	129	80	77	8	8.8%	
32	32	0	667	4	2	188	111	106	14	14.0%	
33	33	0	336	39	9	119	69	67	7	10.4%	
41	41	0	625	11	2	108	68	64	6	9.1%	
42	42	0	575	4	2	163	93	88	13	17.2%	
43	43	0	453	61	13	185	80	79	3	3.4%	
Total		0	7,405	249	50	1,706	1,001	940	103	11.5%	1.2%
Over the Counter Outlets											
11	11	0	702	22	3	69	69	68	10	15.5%	
12	12	0	866	8	2	66	66	65	11	17.2%	
13	13	0	557	4	2	73	73	73	7	10.9%	
14	14	0	447	54	8	56	56	56	4	6.9%	
21	21	0	758	24	3	95	95	95	7	7.1%	
22	22	0	695	7	2	99	99	99	13	13.7%	
31	31	0	631	11	2	77	77	77	8	8.8%	
32	32	0	662	4	2	105	105	105	14	14.1%	
33	33	0	336	39	9	67	67	67	7	10.4%	
41	41	0	611	11	2	64	64	63	6	9.3%	
42	42	0	575	4	2	91	89	88	13	17.2%	
43	43	0	402	61	13	78	78	78	3	3.8%	
Total		0	7,242	249	50	940	938	934	103	11.8%	1.2%
Vending Machines											
11	11	0	0	22	3	0	0	0	0	0.0%	
12	12	0	0	8	2	0	0	0	0	0.0%	
13	13	0	0	4	2	0	0	0	0	0.0%	
14	14	0	85	54	8	2	2	2	0	0.0%	
21	21	0	0	24	3	0	0	0	0	0.0%	
22	22	0	0	7	2	0	0	0	0	0.0%	
31	31	0	0	11	2	0	0	0	0	0.0%	
32	32	0	5	4	2	1	1	1	0	0.0%	
33	33	0	0	39	9	0	0	0	0	0.0%	
41	41	0	0	11	2	0	0	0	0	0.0%	
42	42	0	0	4	2	0	0	0	0	0.0%	
43	43	0	0	61	13	0	0	0	0	0.0%	
Total		0	90	249	50	3	3	3	0	0.0%	0.0%

Note: There are some records with unknown outlet type. Therefore the overall counts may not equal the sum of OTC and VM counts.

SSES Table 3 (Synar Survey Sample Tally Summary)

STATE: NC

FFY: 2008

Disposition Code	Description	Count	Subtotal
EC	Eligible and inspection complete outlet	940	
Total (Eligible Completes)			940
N1	In operation but closed at time of visit	59	
N2	Unsafe to access	2	
N3	Presence of police	0	
N4	Youth inspector knows salesperson	0	
N5	Moved to new location but not inspected	0	
N6	Drive thru only/youth inspector has no drivers license	0	
N7	Tobacco out of stock	0	
N8	Run out of time	0	
N9	Other noncompletion	0	
Total (Eligible Noncompletes)			61
I1	Out of Business	72	
I2	Does not sell tobacco products	572	
I3	Inaccessible by youth	0	
I4	Private club or private residence	0	
I5	Temporary closure	0	
I6	Unlocatable	50	
I7	Wholesale only/Carton sale only	0	
I8	Vending machine broken	0	
I9	Duplicate	11	
I10	Other ineligibility	0	
Total (Ineligibles)			705
Grand Total			1706

SSES Table 4 (Synar Survey Inspection Results by Youth Inspector Characteristics)

STATE: NC

FFY: 2008

Frequency Distribution

Gender	Age	Number of Inspectors	Attempted Buys	Successful Buys
Male	14	0	0	0
	15	1	309	56
	16	2	271	15
	17	0	0	0
	18	0	0	0
	Subtotal	3	580	71
Female	14	0	0	0
	15	2	331	31
	16	1	29	1
	17	0	0	0
	18	0	0	0
	Subtotal	3	360	32
Other		0	0	0
Grand Total		6	940	103

Buy Rate in Percent by Age and Gender

Age	Male	Female	Total
14	0.0%	0.0%	0.0%
15	18.1%	9.4%	13.6%
16	5.5%	3.4%	5.3%
17	0.0%	0.0%	0.0%
18	0.0%	0.0%	0.0%
Other			0.0%
Total	12.2%	8.9%	11.0%

Appendices B & C: Forms

Instructions

Appendix B (Sampling Design) and Appendix C (Inspection Protocol) are to reflect the State's CSAP-approved sampling design and inspection protocol. These appendices, therefore, should generally describe the design and protocol and are not to be modified with year-specific information. Please note that any changes to either appendix must receive CSAP's advance written approval. To facilitate the State's completion of this section, simply "cut and paste" the previously approved sampling design (Appendix B) and inspection protocol (Appendix C).

APPENDIX B

STATE: NC
FFY: 2008

SYNAR SURVEY SAMPLING METHODOLOGY

1. What type of sampling frame is used?

- ☐ List frame *(Go to Question 2)*
☐ Area frame *(Go to Question 3)*
☒ List-assisted area frame *(Go to Question 2)*

2. List all sources of the list frame. Indicate the type of source from the list below. Provide a brief description of the frame source. Explain how the lists are updated (method), including how new outlets are identified and added to the frame. In addition, explain how often the lists are updated (cycle). (After completing this question, go to Question 4)

Use the corresponding number to indicate Type of Source in the table below:

- | | |
|---|--|
| 1 – Statewide commercial business list | 4 – Statewide retail license/permit list |
| 2 – Local commercial business list | 5 – Statewide liquor license/permit list |
| 3 – Statewide tobacco license/permit list | 6 – Other |

Name of Frame Source	Type of Source	Description	Updating Method and Cycle
Dun & Bradstreet	1	National Establishment Listing on DVD	On going update with new releases quarterly

3. If an area frame is used, describe how area sampling units are defined and formed.

Multi-stage design: A multi-stage design was used to facilitate the development of the sampling frame and to reduce field cost. Since no comprehensive listing of outlets is available, the sampling frame was developed from Dun & Bradstreet's business list. Two stages were used in the design. The sampling and data collection methods are basically unchanged from the previous survey except one more PSU became a certainty PSU because of population growth.

Stage 1: In this stage, the State's 100 counties singly or in pairs comprised the primary sampling units (PSUs); minimum PSU size is 30 potential outlets. This combination resulted in a total of 96 PSUs. These PSUs were stratified into 4 primary strata based on mental health districts and

into secondary strata within each of those 4 strata, based on estimated number of outlets. This resulted in a total of 12 explicit final strata. Within these strata, PSUs were sorted by size to achieve additional stratification. PSUs were selected from each of these strata using probability proportional to size (field costs and estimated number of outlets).

Stage 2: Within the sample PSUs, second stage units (SSUs) were formed that are essentially equivalent to the postal ZIP areas. Some of the ZIP areas were combined to form SSUs with a minimum of eight outlets and names were sub-sampled in some of the larger ZIP areas (the targeted SSU size is approximately 10 outlets). The SSUs were selected from the sample PSUs with equal probability. All random numbers were generated within Excel spreadsheet using the random number function (RAND).

- a. Is any area left out in the formation of the area frame? ☐ Yes ☒ No

If Yes, what percentage of the State's population is not covered by the area frame?
_____ %

4. Federal regulation requires that vending machines be inspected as part of the Synar survey. Are vending machines included in the Synar survey?

☒ Yes ☐ No

If No, please indicate the reason they are not included in the Synar survey.

- ☐ State law bans vending machines
☐ State law bans vending machines from locations accessible to youth
☐ State has SAMHSA approval to exempt vending machines from the survey
☐ Other (please describe): _____

5. Which category below best describes the sample design? (Check only one)

☐ Census (STOP HERE: Appendix B is complete)

Unstratified State-wide sample:

- ☐ Simple random sample (go to Question 9)
☐ Systematic random sample (go to Question 6)
☐ Single-stage cluster sample (go to Question 8)
☐ Multi-stage cluster sample (go to Question 8)

Stratified sample:

- ☐ Simple random sample (go to Question 7)
☐ Systematic random sample (go to Question 6)
☐ Single-stage cluster sample (go to Question 7)
☒ Multi-stage cluster sample (go to Question 7)

☐ Other (please describe and go to Question 9): _____

6. Describe the systematic sampling methods. *(After completing Question 6, go to Question 7 if stratification is used. Otherwise go to Question 9.)*

7. Provide the following information about stratification

a. Provide a full description of the strata that are created.

These PSUs were stratified into 4 primary strata based on mental health districts and into secondary strata within each of those 4 strata, based on estimated number of outlets. This resulted in a total of 12 explicit final strata. Within these strata, PSUs were sorted by size to achieve additional stratification. PSUs were selected from each of these strata using probability proportional to size (a function of field costs and estimated number of outlets).

b. Is clustering used within the stratified sample?

☒ **Yes** *(go to Question 8)*

☐ **No** *(go to Question 9)*

8. Provide the following information about clustering

a. Provide a full description of how clusters are formed. *(If multi-stage clusters are used, give definitions of clusters at each stage.)*

Stage 1: In this stage, the State's 100 counties singly or in pairs comprised the primary sampling units (PSUs); minimum PSU size is 30 potential outlets. This combination resulted in a total of 98 PSUs. Within the strata described above, PSUs were sorted by size to achieve additional stratification. PSUs were selected from each of these strata using probability proportional to size (field costs and estimated number of outlets).

Stage 2: Within the sample PSUs, second stage units (SSUs) were formed that are essentially equivalent to the postal ZIP areas. Some of the ZIP areas were combined to form SSUs with a minimum of eight outlets and names were sub-sampled in some of the larger ZIP areas (the targeted SSU size is approximately 10 outlets). The SSUs were selected from the sample PSUs with equal probability. All random numbers were generated within Excel spreadsheet using the random number function (RAND).

b. Specify the sampling method (simple random, systematic, or probability proportional to size sampling) for each stage of sampling and describe how the method(s) is (are) implemented.

Stage 1: PSUs were selected from each of these strata using probability proportional to size (field costs and estimated number of outlets).

Stage 2: Within the sample PSUs, second stage units (SSUs) were selected from the sample PSUs with equal probability. All random numbers were generated within Excel spreadsheet using the random number function (RAND).

APPENDIX C

STATE: NC

FFY: 2008

SYNAR SURVEY INSPECTION PROTOCOL

Note: Attach a copy of the inspection form and protocol used to record the inspection result.

1. How does the State Synar survey protocol address the following?

a. Consummated buy attempts?

- | | |
|--|--|
| <input checked="" type="checkbox"/> Required | <input type="checkbox"/> Not Permitted |
| <input type="checkbox"/> Permitted under specified circumstances | <input type="checkbox"/> Not specified in protocol |

b. Youth inspectors to carry ID?

- | | |
|--|--|
| <input checked="" type="checkbox"/> Required | <input type="checkbox"/> Not Permitted |
| <input type="checkbox"/> Permitted under specified circumstances | <input type="checkbox"/> Not specified in protocol |

c. Adult inspectors to enter the outlet?

- | | |
|---|--|
| <input type="checkbox"/> Required | <input type="checkbox"/> Not Permitted |
| <input checked="" type="checkbox"/> Permitted under specified circumstances | <input type="checkbox"/> Not specified in protocol |

d. Youth inspectors to be compensated?

- | | |
|--|--|
| <input checked="" type="checkbox"/> Required | <input type="checkbox"/> Not Permitted |
| <input type="checkbox"/> Permitted under specified circumstances | <input type="checkbox"/> Not specified in protocol |

2. Identify the agency(s) or entity(s) that actually conduct the random, unannounced Synar inspections of tobacco outlets. (Check all that apply)

- ☐ Law enforcement agency(s)
☐ State or local government agency(s) other than law enforcement
☒ Private contractor(s)
☐ Other

List the agency name(s): NC DHHS contracts with the American Lung Association of NC to conduct the Synar Inspections.

3. Are Synar inspections combined with law enforcement efforts (i.e., do law enforcement issue warnings or citations to retailers found in violation of the law at the time of the inspection)?

- ☐ Always ☐ Usually ☐ Sometimes ☐ Rarely ☒ Never

4. Describe the methods used to recruit, select, and train youth inspectors and adult supervisors.

In order to assure inter-rater reliability, the same instructor trains the youth. The instructions include specific information on the role and responsibilities of the youth, followed by some role playing exercises covering various scenarios that prepared the youth for the different types of questions or responses to expect from the merchants and their employees.

5. Are there specific legal or procedural requirements instituted by the State to address the issue of youth inspectors' immunity when conducting inspections?

a. Legal ☐ Yes ☒ No (If Yes, please describe):

b. Procedural ☐ Yes ☒ No (If Yes, please describe):

6. Are there specific legal or procedural requirements instituted by the State to address the issue of the safety of youth inspectors during all aspects of the Synar inspection process?

a. Legal ☐ Yes ☒ No (If Yes, please describe):

b. Procedural ☒ Yes ☐ No (If Yes, please describe):

Two adult supervisors must be the same gender for each youth inspector for all overnight Synar Survey inspection trips.

Bars, lounges and taverns are not inspected because of safety concerns even though they may be accessible to youth.

7. Are there any other legal or procedural requirements the State has regarding how inspections are to be conducted (e.g., age of youth inspector, time of inspections, training that must occur)?

a. Legal ☐ Yes ☒ No (If Yes, please describe):

b. Procedural ☒ Yes ☐ No (If Yes, please describe):

Youth inspectors must be 15-16 years of age. Liquor stores are not included due to the fact that they are all state operated and do not sell tobacco products.

NORTH CAROLINA'S COMPLIANCE CHECK/INSPECTION PROTOCOL

A team of two to four youth between the ages of 15 and 16 years, who appear to be approximately that age, will participate in our annual compliance checks. Sixteen has been chosen since the most typical age of youths now used in tobacco covert compliance checks when done for enforcement purposes is 16 to 17 years old. Fifteen is added to give a broader range of outcome date. The age of appearance will be determined by having 15 adults guess the ages of the youth and calculate an average age of appearance. All youth must appear to be under eighteen in order to participate. An attempt will be made to have teams that are gender and ethnically appropriate to the sample area. More than one set of teams may be selected to work in a particular area of the State. In order to assure inter-rater reliability, the teams will be trained by the same instructors.

Written parental permission will be obtained prior to participation for each minor being used in the study. A photograph of each individual will be obtained prior to program initiation, along with a copy of the youth's birth certificate and a copy of their photo identification card. These will be placed on file with the Community Policy Management Section in the Division of Mental Health, Developmental Disabilities and Substance Abuse Services.

The team will be supervised by an adult over the age of 21 at all times. The youth will be instructed not to misrepresent their age. They will be dressed in the same manner in which they were dressed when they went through the age estimation procedure to assure that no one could say that they looked younger or older than their stated age.

The youth will **not** present any false identification when attempting to purchase tobacco. When asked, they will simply show their true identification. If challenged about their ages, they will state their correct age.

The youths will enter the tobacco establishment alone and attempt to purchase. The supervising adult will remain in the vehicle, or if entering, will enter at a different time so that the merchant will not think they are together. The supervisor will be careful not to let the retailer see the two of them together so that the clerk will not think that the adult is a parent or part of a team conducting tobacco stings.

The youth will carry the money needed to pay for cigarettes and will first try to purchase from a self-service display if that is available. If this is unavailable, a single pack of cigarettes will be requested. Youth attempting to purchase cigarettes from vending machines will be instructed to go directly to the machine and deposit the correct change. After the purchase attempt, the youth will exit the establishment with or without the tobacco product. If a pack of cigarettes was purchased, an identification sticker will be placed on the product and reported on the data collection form. All tobacco products will be destroyed by the State at the end of the study.

No youth at any time will stay overnight with an adult supervisor of the opposite sex. No youth will stay overnight without the signed approval of the parent(s) of the youth. Any team member may quit the study at any time and be immediately driven home. The youth will receive full pay up to the time of terminating his/her participation.

The supervisor will complete a N.C. Tobacco Retail Outlet Compliance Check Data Collection Form immediately following each attempted inspection. The data collection form was designed to include a variety of key data elements which will provide valuable information in terms of assessing compliance with the Synar Amendment and targeting vendor education and enforcement efforts.

**NORTH CAROLINA TOBACCO RETAIL OUTLET
COMPLIANCE CHECK DATA COLLECTION FORM**

1. Name of Outlet: _____
2. Address of Outlet: _____
 City: _____ Zip: _____
3. Date of Compliance Check: _____, 1996 Time: _____ AM/PM
4. Status of Outlet: _____
 1= No longer in business 3= Not at address given 5= Does not sell tobacco
 2= Closed at time of check 4= Judged unsafe for minor 6= Check was completed
5. Type of Outlet: _____
 1= Gas/Convenience 5=Dept. Store 9=Bowling Alley
 2= Convenience without gas 6=Gas Only 10=Skating Rinks
 3= Grocery Store 7=Restaurant 11=Video Arcades
 4= Drug Store/Pharmacy 8=Hotel/Motel 12=Other
6. Location of Tobacco Products in Retail Outlet: _____
 1= Behind Counter (had to ask clerk to get tobacco)
 2= In Front of Counter (picked up tobacco without asking)
 3= Vending Machine, out of sight of employee
 4= Vending Machine, in sight of employee
7. Was Vendor Willing to Sell to Minor? _____yes _____no
8. Did you observe single cigarettes for sale? _____yes _____no
9. Was Warning Sign Posted (e.g. No Sale Under 18) _____yes _____no
10. Was Minor Asked Age? _____yes _____no
11. Was Minor Asked for I.D.? _____yes _____no
12. Approximate Age of Clerk: _____ Race: _____ Sex: _____ male _____ female
 Age -- 1= Under 18 years 2= 18-40 years 3= Over 40 years
 Race-- 1=Black 2=White 3=Other
13. Cost of Tobacco Product: \$ _____ Sticker Number: _____
14. Initials of Minor Making the Buy: _____
15. Other Comments (please record any interesting or unusual details) _____

Data Form Number: _____ Supervisor: _____
 Tob.Comp.Form I/96

APPENDIX D

STATE: NC
FFY: 2008

List Sampling Frame Coverage Study (LIST FRAME ONLY)

1. Calendar year of the coverage study: 2007

2. Percent coverage Found: 64% weighted and 70% unweighted
(Provide calculation of the percent coverage)

$$\text{Unweighted Rate} = \sum_{i=1}^{17} n_{Li} / \sum_{i=1}^{17} n_{Ai};$$

$$\text{Weighted Rate} = \sum_{i=1}^{17} W_i n_{Li} / \sum_{i=1}^{17} W_i n_{Ai};$$

where n_{Li} and n_{Ai} are outlet counts in canvas area i for the list and area frame, respectively and W_i are the sampling weights for area i.

3. Provide a description of the coverage study methods and results.

From June 1 to October 30, 2007, the NC Sampling Frame Coverage Study was implemented to estimate the coverage of the Dun & Bradstreet list used as the sampling frame for the SYNAR inspection survey. Exhibit 1 provides a summary of the study results. The estimated coverage of 64 percent (70 unweighted) is slightly less than the 73 percent estimate of the previous coverage study and does not meet the 80 percent minimum coverage required for the inspection survey.

As shown in Exhibit 1, the coverage design used seven geographic strata, covering a range of population density. A stratified sample of 17 canvas areas was randomly selected from that frame to estimate the coverage rate of the licensure frame (one area not listed because no outlets found). The area frame of canvas areas gives complete coverage of all tobacco outlets in the State, whether or not our list frame indicated any outlets in the sample areas. Because the number of outlets varies greatly among ZIP areas (the basic area used for the sampling unit), from zero to around 70, the ZIP units were selected with probability proportional to size. This method facilitates using approximately equal sized canvassing units, equal probabilities per outlet, and a full coverage frame, but also has the potential of resulting in a few extreme weights if any outlets are found in unsuspected areas (which happened in two areas). Specifically, three areas were selected with very small probabilities (size measure of 1) because they were thought to have zero or possibly one or two outlets. One of these had no outlets but the other two had

outlets (2 and 7). The weights in these cases were edited based on a method discussed below. A total of 338 tobacco outlets were identified in the field canvassing for an average of 20 per canvas area.

Both weighted and unweighted coverage rates are presented at the bottom of the Exhibit. The sampling weight for each outlet is based on the canvas-area selection probabilities and the two estimates are calculated as:

$$\text{Unweighted Rate} = \sum_{i=1}^{17} n_{Li} / \sum_{i=1}^{17} n_{Ai};$$

$$\text{Weighted Rate} = \sum_{i=1}^{17} W_i n_{Li} / \sum_{i=1}^{17} W_i n_{Ai};$$

where n_{Li} and n_{Ai} are outlet counts in canvas area i for the list and area frame, respectively and W_i are the sampling weights for area i .

Details for the coverage design and field methodology are in Design of Sampling Frame Coverage Study: submitted by North Carolina December 7, 2006. Recall from that design report, that the canvas areas were created as ZIP areas or portions of ZIP areas (larger ZIPs were randomly subsampled to obtain a feasible canvas area—size being based on estimated number of tobacco outlets). The ZIP boundaries for field maps were created from DeLorme Street Atlas. Detailed information about all ZIP codes in a county was obtained from Melissadata.com, which lists all ZIP areas and the percent of the population of each ZIP that is located within a county. Except for the three certainty strata (large metros), counties were selected at the first stage to facilitate creating a frame of ZIP areas. All ZIP areas with 50 percent or more of their population in the selected counties were included in the frame for the county (hence, all ZIP areas in NC had a positive probability of being selected for the coverage study).

The Dun & Bradstreet list frame and Melissadata were used as a source for a size measure used to select ZIPs with probability proportional to size. The listed ZIPs that contained no known outlets were assigned a small size measure to ensure full coverage by the area sample.

We note that the estimated number of outlets in NC last year, based on the Synar Inspection Survey, was 7,680. The coverage study this year indicated that the list contained 7,160 outlets, but that there are actually approximately 11,000 in the State. We note that this is the first coverage study that included ZIP areas that had no potential outlets based on D&B. Based on the results of this and previous coverage studies, we must revise our survey methodology. Since no other promising lists are known to exist we are proposing a list-assisted, area based survey, based essentially on the same design used for the coverage study this year except for more areas. We understand that such a design will exempt us from future coverage studies.

The method used to edit the two extreme weights mentioned, mentioned above, is known as the NAEP procedure that was developed in conjunction with the National Assessment of Educational Process. The method limits the size of a weight to allow it to contribute no more than 10 times the average weight contribution to the overall design effect. Such methods are used in most large scale surveys including those conducted by the Census Bureau in the Current Population Survey and the Consumer Expenditure Survey. Some method is needed because a

few very extreme weights can unduly influence results and inflate survey precision. The NAEP procedure has been found to be one of the more effective and defensible methods.²

² Potter, F. (1990), "A Study of Procedures to Identify and Trim Extreme Sampling Weights," Paper presented at *1990 Proceedings of the Section on Survey Research Methods*, American Statistical Association

Exhibit 1. Coverage Study Results					
Canvassing Area	Stratum	Outlet Weights	Number of Outlets Identified Per Canvassing Area	Number of Matched Outlets on List Frame	Percentage of Outlets Found on List
1.	1	9.621667	26	19	73.1%
2.	1	15.26619	37	24	64.9%
3.	2	15.86676	36	30	83.3%
4.	2	14.86982	26	23	88.5%
5.	3	11.41519	9	4	44.4%
6.	3	135**	2	1	50.0%
7.	3	12.77317	21	13	61.9%
8	4	92.671	10	7	70.0%
9.	4	58.21149	34	25	73.5%
10	5	135**	7	0	0.0%
11	5	68.95807	13	7	53.8%
12	5	29.68588	33	22	66.7%
13	6	38.53468	17	15	88.2%
14	6	52.77189	17	14	82.4%
15	7	31.30387	30	17	56.7%
16	7	25.55555	20	14	70.0%
Un-weighted					69.53%
Weighted*					64.26%

*using outlet weights, which are reciprocal of the probability of county selection times conditional probability of selecting the canvass area within the county.

**extreme weight was trimmed using NAEP trimming rule.